SECRET

62-5167

20 July 1962

MEMORANDUM FOR THE RECORD

SUBJECT: Defense Views on Military Weapons in Space

1. At the Tuesday Planning Staff (Rostow) luncheon on 17 July, Assistant Secretary Rubel of the Defense Department made an interesting presentation on current military thinking about future developments holding promise for military weapons in space.

2. The net effect of Rubel's presentation was that a vast amount of experimentation and thinking about the military applications of space science indicated that there is no very promising technical application of known space activities to military strength.

3. Rubel said that original interest in the "bombs in orbit" concept had been pretty thoroughly abandoned now, mainly because the reliability (especially electronically) of such weapons would be poor, re-entry of a weapon from an orbiting vehicle would be technically very difficult to control, and the probable error in aiming from space platforms would be at least 10 nautical miles. This seems to be a fairly firm estimate of the Defense Department planners, even though Paul Nitze held out for the view that the psychological effect of one Soviet "bomb in orbit" as cover at the time of a Soviet pressure

move in Berlin or elsewhere would be of tremendous advantage to the USSR.

4. Rubel said that the US has no present capability to knock down a satellite, that it is feasible to develop an anti-satellite capability for destruction of satellites on repeated orbits, but that it is questionable whether any known system will destroy satellites on their first or second orbit. He said the US has no present plan for deploying the Nike/Zeus nuclear AMM at fixed sites because of the prohibitive costs.

5. Rubel said there was little emphasis at present on any of the infra-red systems of anti-missile or anti-satellite weapons since the Midas has found such great difficulty in avoiding the infra-red effect of full sunlight and since some missiles have burned out as far as infra-red pulses are concerned when they get above the layer of atmosphere which protects factories and other heat sources on the earth from affecting the Midas system.

6. The Defense Department is spending annually about 1½ billion dollars on space projects. A total of about 750 million dollars will be spent over several years in developing the Titan III as a workhorse space booster likely to be more reliable and easier to standardize than the Saturn, concerning which Rubel expressed grave doubts as to its effectiveness.

7. Rubel thinks that Soviet successes in space launches were in good part a result of their adoption of a standard booster of large thrust and their willingness to use the same launch trajectory on repeated space efforts. The US effort has been much more diversified both in terms of booster capabilities and booster trajectories, thus preventing the accumulation of experience which enables a "building block" accretion of knowledge and experimentation to develop. He hoped that the Titan III would be come the "DC-3" of space and that its thrust can be tailored to needs by the addition of side-tied solid fuel rocket packages--something like enormous JATO bottles. Rubel seemed quite confident of the ability to develop these assist-rockets with as much as a million pounds of thrust.

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RAY S. CLINE
Deputy Director (Intelligence)

TRANSMITTAL SLIP	DATE 23 July 62
TO: DDI/R	
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REMARKS:	
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ROOM NO.	BUILDING

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